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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/521,240	04/05/2000	Eiji Suematsu	0033-0651P	6236

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Birch Stewart Kolasch & Birch LLP  
P O Box 747  
Falls Church, VA 22040-0747

EXAMINER

SHANG, ANNAN Q

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 08/04/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/521,240

Applicant(s)

SUEMATSU ET AL.

Examiner

Annan Q Shang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2004.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-52 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 1-3, 5-37, 43-50 and 52 is/are allowed.  
6) ☒ Claim(s) 38-42 and 51 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 38-40 and 51, are rejected under 35 U.S.C. 102(b) as being anticipated by **Tanishima (5,953,045)**.

As to claim 38, note the **Tanishima** reference figures 1, 5 and 9, discloses Video Channel Selection Type Radio Reception Apparatus and further discloses an electronic apparatus capable of utilizing an output signal from a millimeter wave receiver, comprising:

the claimed “a connector connected with said millimeter wave...” is met by Cable 71 (figs. 5, 9, col. 2, lines 61-66, col. 6, lines 34-36 and col. 7, lines 40-45), note that Video Channel Selection Type Radio Reception Apparatus (VCSRRec) 51 is a millimeter wave transceiver connected by Cable 71 “a connector” to Television Receiver (TVR) 61 “an electronic apparatus”, and transmits/receives 60 GHz signals, where TVR 61 includes “a control signal transmission circuit” which transmits channel selection signals “control signal

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indicating information" of TVR 61 to Cable 71 (col. 5, line 67-col. 6, line 10, lines 34-36 and col. 9, lines 13-39).

As to claim 39, note the **Tanishima** reference figures 1, 5 and 9, discloses Video Channel Selection Type Radio Reception Apparatus and further discloses an electronic apparatus capable of utilizing an output signal from a millimeter wave receiver, comprising:

the claimed "a connector connected with said millimeter wave..." is met by Cable 71 (figs. 5, 9, col. 2, lines 61-66, col. 6, lines 34-36 and col. 7, lines 40-45), note that Video Channel Selection Type Radio Reception Apparatus (VCSRRec) 51 is a millimeter wave transceiver, connected by Cable 71 "a connector" to Television Receiver (TVR) 61 "an electronic apparatus", and transmits/receives 60 GHz signals;

the claimed "a memory circuit storing information as to whether or not to utilizes the output signal from the millimeter wave receiver..." is inherent to TVR 61 (col. 4, lines 1-10 and col. 9, lines 13-23), note that TVR 61 receives NTSC or PAL video signals and based on the channel selection information, the output signal from VCSRRec 51 is store at TVR 61 which enables TVR 61 to determine the form of signal to display and further includes "a control signal transmission circuit" which transmits channel selection signals "control signal indicating information" of TVR 61 to Cable 71 (col. 5, line 67-col. 6, line 10, lines 34-36 and col. 9, lines 13-39).

As to claim 40, note the **Tanishima** reference figures 1, 5 and 9, discloses Video Channel Selection Type Radio Reception Apparatus and further disclose

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an electronic apparatus having a function of receiving television broadcasting, comprising:

The claimed "a millimeter wave receiving circuit receiving millimeter waves, obtained by up-converting a plurality of broadcasting waves...." is met by Antenna 51d (figs. 5, 9, col. 6, lines 10-17, lines 48-56 and col. 9, lines 25-39), note that Antenna 51d of Video Channel Selection Type Radio Reception Apparatus VCSRRec 51 receives millimeter waves, obtained by up-converting a plurality of broadcasting waves output from Video Channel Selection Type Radio Transmission Apparatus (VCSRTra) 41 "a millimeter wave transmitter;

the claimed "a broadcasting wave demodulating circuit..." is met by Frequency Converter (FC) 51f (col. 6, lines 26-36) which down-converts the millimeter wave to the frequency band 100-MHz of the broadcasting waves;

the claimed "an inverse frequency arranger changing the frequency arrangement of output signals of said broadcasting wave demodulation circuit..." is met by Local Oscillator (LO) 51e (col. 6, lines 18-26) which changes the frequency arrangement of the output of FC 51f; and the claimed "a transmission circuit..." is met by Antenna 51d (figs. 5, 9, col. 6, lines 10-17, lines 48-56 and col. 9, lines 25-39) which also transmits channel selection signals "a control signal for controlling the VCSRTra 41.

As to claim 51, Tanishima further discloses where LO 51e converts the broadcasting waves from the intermediate frequency band to the original frequency band of terrestrial waves (col. 6, lines 18-26).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 41-42, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Tanishima (5,953,045)** in view of **Beasley (5,321,736)**.

As to claim 41, note the **Tanishima** reference figures 1, 5 and 9, discloses Video Channel Selection Type Radio Reception Apparatus and further disclose a repeater (Video Channel Selection Type Radio Reception Apparatus "VCSRRec" 51) connected to an antenna (51d) receiving broadcasting for making relay to a terminal (Television Receiver "TVR" 61), comprising:

the claimed "broadcasting wave input circuit receiving a plurality of broadcasting waves through said antenna and converting said broadcasting waves to broadcasting signals..." is met by Frequency Converter (FC) 51f (figs 5, 9 and col. 5, line 65-col. 10 and lines 26-3) note that FC 51f is a broadcasting wave input circuit receiving a plurality of broadcasting waves through Antenna (Ant) 51d via Duplexer 51c and converting the broadcasting waves to broadcasting signals corresponding to the broadcasting waves respectively;

the claimed "a frequency arranging circuit changing the frequency arrangement of the broadcasting signals..." is met by Local Oscillator (LO) 51e (col. 6, lines 18-26) which changes the frequency arrangement of the output of

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FC 51f and inherently teaches a power supply circuit supplying power to the antenna and other elements of the VCSRRec 51 which enables the VCSRRec to receive channel selection signals from TVR 61 "terminal" via Cable 71 "a connection unit" connected with TVR 61.

Tanishima, fails to explicitly teach a power receptor circuit receiving driving power of the VCSRRec 51 "the repeater" through a connection unit.

However, note **Beasley** reference figures 1 and 2, discloses a distributed RF repeater (RFR) 24 with a Base Station 14 and a Power Supply Unit 18 (col. 2, line 56-col. 3, line 18) where RFR includes DC Power 50 "a power receptor circuit" that receives driving power of RFR 24 from Base Station 14 and a Power Supply Unit 18 through Coaxial Cable 22 "connection unit."

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Beasley into the system of Tanishima to provide a centralized system which provides broadcast services as well as power supply and control power supply to the various repeaters.

As to claim 42, Tanishima further discloses Modulator 51a "a control signal receiver" which receives channel selection signal from TVR 61 through Cable 71 (col. 6, lines 43-56).

***Allowable Subject Matter***

5. Claims 1-3, 5-37, 43-50 and 52 allowed.

6. The following is an examiner's statement of reasons for allowance: with respect to independent claims 1, 8, 46, 47 and 48, the prior art of records **Tanishima (5,953,045)** teaches a millimeter wave transmitter and receiver for

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transmit/receiving broadcasting wave signals and converting it to millimeter wave signals which is transmitted/received indoors. **Macdonald et al (5,835,128)** disclose a wireless television signal distribution system for distributing television signals received from a satellite or other source to a plurality of individual receiving units within one or more multiple dwelling units. However, neither **Tanishima** nor **Macdonald** and any of the cited references teach, or suggest alone or in combination the feature of millimeter wave transmitter/receiver for performing millimeter wave radio transmission indoors and a connection unit connectable receiving broadcasting and a power supply circuit supplying driving power to a millimeter wave transmitter through the connection unit, as recited in combination with other features with respect to independent claims 1, 8, 47 and 48.

With respect to independent claims 12, 37, 43 and 44, neither **Tanishima** nor **Macdonald** and any of the cited references teach, or suggest alone or in combination the feature of a millimeter wave receiver and a connection unit connectable with an antenna having a function of receiving broadcasting and power receptor circuit receiving driving power of the millimeter wave receiver through the connection unit.

### ***Response to Argument***

7. Applicant's arguments with respect to claims 38-40 and 51 have been considered but are moot in view of the new ground(s) of rejection discussed above. This Office Action is Non-Final.



***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

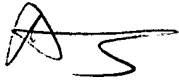
Wilson (6,160,993) discloses method and apparatus for command and control of remote systems using low earth orbit satellite communications (figs. 9 and 10).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Annan Q Shang** whose telephone number is **703-305-2156**. The examiner can normally be reached on **700am-500pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John W Miller** can be reached on **703-305-4795**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the **Electronic Business Center (EBC)** at **866-217-9197 (toll-free)**.

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A handwritten signature in black ink, appearing to be 'AS' with a stylized flourish.

**Annan Q. Shang.**

A handwritten signature in black ink, appearing to be 'J. Miller' with a stylized flourish.

**JOHN MILLER**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**